21003

Applicant: Bradley et al. Serial No.: 09/546,085

Filed : April 10, 2000

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AMENDMENT

Please amend the above-captioned application as follows:

In The Claims:

Please add the following new claims:

- 66. A process for making a modified biological molecule comprising the steps of:
- (a) providing a biological molecule comprising a guanine base or a cytosine base;
- (b) reacting the guanine base or the cytosine base with an N-bromosuccinimide at pH about 8.0 to form a brominated biological molecule; and
- (c) reacting the brominated biological molecule with a silane having the formula —HN— $(CH_2)_n$ — $Si(OR)_3$, wherein n=3, 4, 5, 6, 7, 8, or 9.
- 67. The process of claim 66, wherein R is selected from the group consisting of —CH₃, —C₂H₅, and —C₃H₇.
 - 68. A process for making a modified biological molecule comprising the steps of:
 - (a) providing a biological molecule;
 - (b) providing a compound having a formula

$$R_1$$
 $X - R - Si - O - R_2$
 R_2

wherein X is a halide and R is a moiety chemically suitable for linking the biological molecule with the Si moiety;

- (c) reacting the biological molecule with the compound of step (b) at near neutral pH.
- 69. The process of claim 68, wherein the halide is selected from the group consisting of a Cl, a Br and an I.

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consisting of a —OCH₃, and a —OC₂ H₃.

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70. The process of claim 68, wherein the R group is selected from the group

- 71. The process of claim 68, wherein the compound of step (b) is selected from the group consisting of 8-bromocytltrichlorosilane, 8-bromocytltrimethoxysilane, 4-chlorobutylmethyldichlorosilane, and 3-iodopropyltrimethoxysilane.
- 72. The process of claim 66 and claim 68, wherein the biological molecule comprises a polypeptide or a peptide.
- 73. The process of claim 66 and claim 68, wherein the biological molecule comprises a polysaccharide or a saccharide.
- 74. The process of claim 66 and claim 68, wherein the biological molecule comprises a lipid.
- 75. The process of claim 66 and claim 68, wherein the biological molecule comprises a small molecule.
- 76. A process for making a microarray comprising a modified biological molecule comprising the steps of:
 - (a) providing a biological molecule;
 - (b) providing a solid support;
 - (c) providing a compound having a formula

$$R_1$$
|
 $X - R - Si - O - R_2$
|
 R_3

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wherein X is a halide and R is a moiety chemically suitable for linking the biological molecule with the Si moiety;

- (d) reacting the biological molecule with the compound of step (c) at near neutral pH, thereby making a modified biological molecule; and,
- (e) immobilizing the biological molecule in a plurality of discrete spots upon the solid support, thereby making a microarray.
- 77. A process for making a microarray comprising a modified biological molecule comprising the steps of:
 - (a) providing a biological molecule comprising a guanine base or a cytosine base;
 - (b) providing a solid support;
- (c) reacting the guanine base or the cytosine base with an N-bromosuccinimide at pH about 8.0 to form a brominated biological molecule;
- (d) reacting the brominated biological molecule with a silane having the formula $-HN-(CH_2)_n$ —Si(OR)₃, wherein n = 3, 4, 5, 6, 7, 8, or 9; thereby making a modified biological molecule; and,
- (e) immobilizing the biological molecule in a plurality of discrete spots upon the solid support, thereby making a microarray.